

REMARKS/ARGUMENTS

In response to the Office Action dated December 23, 2003, claims 1-11 are amended. Claims 1-12 are now active in this application. No new matter has been added.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102 AND § 103

Claims 1-12 are rejected under 35 U.S.C. § 102(e) as being anticipated by Takano et al. (USPN 5,887,125).

The rejections are respectfully traversed.

It is initially noted that the sixth paragraph of 35 U.S.C. § 112 permits an element in a claim for a combination to be expressed as a means or step for performing a specified function without recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. See *In re Donaldson*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994).

Thus, with respect to independent claims 1 and 11, the first and second correcting means are construed as corresponding respectively to the first skew correction portion 42a and the second skew correction portion 42b. Clearly, the skew correction being performed in the present application is via correction of image data stored in image memory 34. More specifically, it is clearly described at page 13, lines 15-20 that the 1-line-based skew correction is performed by processing, in the memory, image data stored in the bitmap memory region within the DRAM 34. Then, the image data (which is to be printed) that has been previously corrected against skew distortion is transmitted to the print head (for printing).

In contrast, Takano et al. does not perform skew correction by processing image data stored in the bitmap memory region within a DRAM. What Takano et al. does is process *a main pitch mark group and a sub pitch mark group which are formed on the belt-shaped transport means by the mark image forming unit 41*. Corrections in the main scan direction so as to correct the main scan direction start position and the printing width, as well as corrections in the sub scan direction so as to correct the sub scan direction start position and the skew are mad *based on the extracted marks*. Thus, the subject matter identified by the Examiner as corresponding to the first and second correcting means of claims 1 and 11 in fact, does not correspond to this subject matter since the marks are not image data stored in the bitmap memory region within the a DRAM.

Furthermore, Takano et al. describes skew correction at column 24, lines 29-38 as follows:

The skew correction is carried out by rotating each of the Y, M, C and K optical units 13 by a small angle about a vertical axis depending on the error quantity described above in conjunction with FIG. 9. For example, this rotation by a small angle is achieved by pushing a reference surface of the optical unit 13 against a lever (not shown) of the image forming apparatus 1, and rotating the lever by a stepping motor or the like depending on the error quantity of the skew. Such a correction can be carried out in units of 25 $\mu\text{m}/\text{step}$, for example.

Since Takano et al. corrects skew by physically rotating each of the optical units 13, the skew correction performed in Takano et al. has neither the same structure, ... or acts described in the present specification as corresponding to the first and second correcting means, nor is it an equivalent to first and second correcting means of claims 1 and 11 since the present application clearly describes skew correction as being performed by processing, in the memory, image data stored in the bitmap memory region within the DRAM 34. More specifically, changing the

physical orientation between the photoconductive drum 12 and optical unit 13 that forms the latent image on the photoconductive drum 12 in order to correct skew, as disclosed in Takano et al., is substantially different from the skew correction of the present application where *image data* is corrected on a line basis in the sub-scanning direction and then this corrected *image data* is further corrected on a unit basis smaller than one line.

Thus, independent claims 1 and 11, as well as dependent claims 2-4 and 12, are patentable over Takano et al. At any rate, independent claims 1 and 11 are amended to recite first/second skew correcting means.

With regard to independent claim 5, the Examiner maintains that the write address generating for generating, from the read address, write addresses by correcting relative inclination between the print head on a line basis is described at column 17, lines 17-53 as is the fact that the leading and read end portions of the image data region of the bitmap memory (to which the memory controller writes image data), provide respect blank regions. However, this is incorrect.

Since correcting relative inclination between the print heads on a line basis is skew correction, the write address generator is required to generate, from read address, write address by correcting skew. Since, as noted above, Takano et al. corrects skew by rotating each of the optical units, the skew correction performed in Takano et al., it is clear that Takano et al. does not generate write address from read address by correcting skew. In addition, there is no description at column 17, lines 17-53 regarding the leading and read end portions of the image data region of the bitmap memory. Consequently, there is basis for the Examiner to assert that Takano et al. discloses that the leading and read end portions of the image data region of the

bitmap memory provide respective blank regions. Thus, independent claim 5, as well as dependent claim 6, are patentable over Takano et al.

Independent claim 7 requires the read address generating unit to generate read addresses for image data based on correction data on relative inclination between print heads. As noted above, correction data on relative inclination between the print heads refers to correction data on skew. There is nothing described at column 17, lines 17-53 regarding skew correction data, let alone that read addresses, which are used for reading out the image data from the bitmap memory, are generated based on correction data relative inclination between the print heads; i.e., generated based on skew correction. Thus, independent claim 7 is patentable over Takano et al.

Independent claim 8 requires a read address generator for consequently generating read address for image data based on relative inclination between the print heads on the unit basis of one burst access. As with independent claims 5 and 7, relative inclination between the print heads refers to skew between print heads. There is nothing described at column 17, lines 17-53 regarding consequently generating read address for image data based on skew between the print heads. In addition, nowhere in Takano et al. is there any description regarding burst access in reading image data from the bitmap memory, as is required by independent claim 8. Thus, independent claim 8, as well as dependent claims 9 and 10, are patentable over Takano et al.

The above argued differences between the claimed device vis-à-vis the device of Takano et al. undermine the factual determination that Takano et al. identically describes the claimed inventions within the meaning of 35 U.S.C. § 102. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Applicant, therefore, submits that the imposed rejection of claims 1-12 under 35 U.S.C. § 102 for

lack of novelty as evidenced by Takano et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

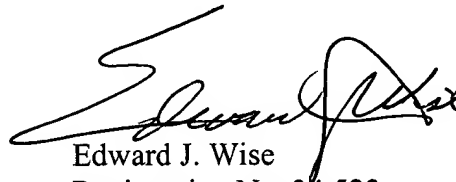
CONCLUSION

Accordingly, it is urged that the application, as now amended, is in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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